

Name:

Edexcel Style

Combined Science GCSE

Health, Disease and the Development of Medicines Test
(Levels 4–9)

Date:

Time Allowed: 50mins

Question	Links to Student Progress Sheet	Score	Total Marks Available
1	5.1, 5.2, 5.3		7
2	5.4		8
3	5.5, 5.6, 5.8		10
4	5.12, 5.13a, b, c, d		12
5	5.16, 5.20		4
6	5.23, 5.24 b, c, d, e		9
Total			50

Score	Estimated Grade
47 – 50	9
40 – 46	8
33 – 39	7
28 – 32	6
24 – 27	5
20 – 23	4
0 – 19	U

Please be aware that these grade boundaries are Twinkl's own, and may not be in-line with Edexcel's own.

Area for Improvement:

1. (a) Complete the sentence by putting a tick in the box next to your answer.

(1)

Health is...

- ☐ the state of physical, mental and emotional well being.
- ☐ freedom from disease or injury.
- ☐ the state of physical, mental and emotional well being and freedom from disease or injury.
- ☐ determined by BMI only.

(b) Complete the table by putting a tick under the correct heading for each disease.

(4)

	Communicable	Non-communicable
Tuberculosis		
Cancer		
Cholera		
Chalara ash dieback		

(c) In the UK, the flu vaccine is currently offered to all adults over the age of 18 who have underlying health conditions, e.g. heart or respiratory diseases.

Explain why a person with an existing health condition may be more susceptible to other diseases.

(2)

(Total for Question 1 = 7 marks)

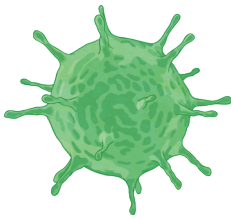
2. (a) Put a tick in the box next to all of the answers which are the names of pathogens.

(4)

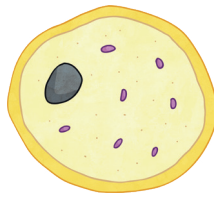
- ☐ yeast
- ☐ virus
- ☐ bacteria
- ☐ poor diet
- ☐ mosquito
- ☐ protozoan

(b) The diagrams below show three different pathogens.

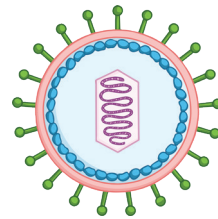
(1)



A



B

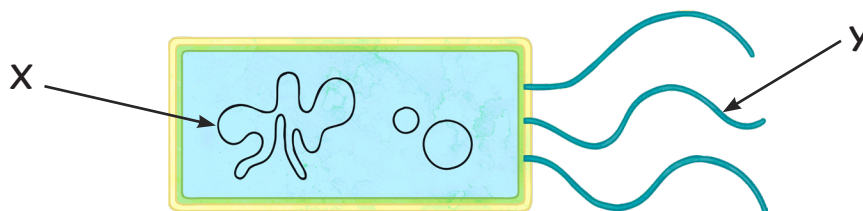


C

Write the letter of the diagram which shows a virus. _____

(c) The diagram below shows a cell of a pathogen.

(1)



Tick the box to show which answer states the names of parts X and Y.

- ☐ X is a nucleus, Y is a tail
- ☐ X is a gene, Y is a flagellum
- ☐ X is DNA, Y is a tail
- ☐ X is DNA, Y is a flagellum

(d) State two ways a virus and cell are different.

(2)

(Total for Question 2 = 8 marks)

3. (a) Complete the table by putting a tick or a cross into each empty box.

(4)

	Virus	Bacterium
Chlamydia		
Cholera		
HIV		
Tuberculosis		

(b) How is cholera spread?

(2)

(c) Explain how malaria is transmitted between humans.

(4)

(Total for Question 3 = 10 marks)

4. (a) Describe two physical and two chemical defences of the human body which help to protect against infection from pathogens.

(4)

Physical defence 1:

Physical defence 2:

Chemical defence 1:

Chemical defence 2:

- (b) Explain how the human immune system responds to a pathogen in the body.

(6)

(c) Explain what is meant by a 'secondary immune response'.

(2)

(Total for Question 4 = 12 marks)

5. (a) Chicken pox is a common childhood illness caused by a virus.

Explain why antibiotics would not be useful as a treatment.

(2)

- (b) Complete the sentence by putting a tick in the box next to your answer.

(1)

A placebo is...

- ☐ a drug which contains natural substances only.
- ☐ a drug which contains artificial substances only.
- ☐ something which looks like a drug but contains none of the drug itself.
- ☐ a drug used for medicine.

- (c) Complete the sentence by putting a tick in the box next to your answer.

(1)

A double blind trial is...

- ☐ a drug trial where only the volunteer knows if they are receiving the real drug.
- ☐ a drug trial where only the doctor knows if they are receiving the real drug.
- ☐ a drug trial where the volunteer and the doctor know if they are receiving the real drug.
- ☐ a drug trial where the volunteer and the doctor do not know if they are receiving the real drug.

(Total for Question 5 = 4 marks)

6. (a) A patient has a mass of 97.5kg and a height of 164cm.
Calculate the patient's BMI.

(3)

BMI _____

- (b) Circle the category which the patient would fall into based on their BMI result.

(1)

underweight	normal	overweight	obese
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- (c) State two changes the patient should make to help reduce their BMI.

(2)

- (d) Choose the correct words from the box below to complete the following sentences about health and disease.

(3)

tobacco smoke	alcohol	caffeine
communicable		non-communicable

_____ diseases are often caused by many factors together. Lifestyle choices can often be a contributing factor to these types of diseases. For example, excessive consumption of _____ can lead to liver diseases and excessive inhalation of _____ can lead to lung diseases.

(Total for Question 6 = 9 marks)

TOTAL FOR PAPER = 50 MARKS